Instructions for Read_SOCATv3.m

This is the routine to get the SOCAT v3.0 (2015) data into matlab. The data files are the "SOCAT V3" global and regional zip files, which can be downloaded from the SOCAT Data Download page on www.socat.info. It can also read the individual cruise files from Pangaea (http://doi.pangaea.de) as well as the ascii or csv files downloaded from the cruise viewer on the SOCAT website.
Several files can be selected, all with the same extension.

Instructions:

Possible User Input:

readlines = number of lines read per loop
Some computers might overload if this number is too big. Lower the number if that's the case. 10,000 seems to work well.

dflt = set of column numbers that will show up as selected when interface is created. They can be deselected at will on the interface.

① Start the program, then select the file you want to import. The following extensions are allowed: .txt   .tab.tsv   .tsv   .csv   .rtf'

② Select the variables you want to import individually on the interface…click OK. [clicking CANCEL will stop the program]

③ Enter the geographical limits of the data you want to import …click OK. [clicking CANCEL will stop the program]
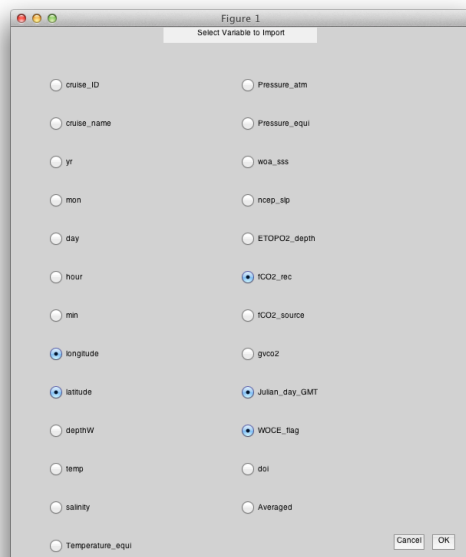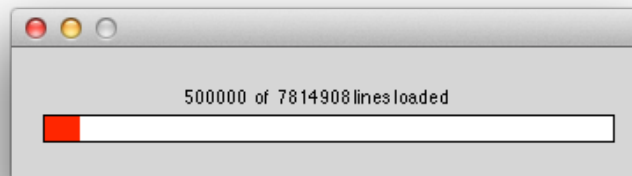

The names displayed are the column headers
The resulting variables in Matlab will have the same names.

④ If applicable, select the cruise and/or data flags to be imported.
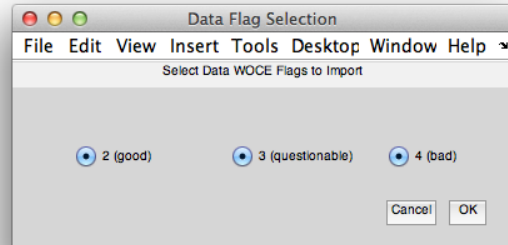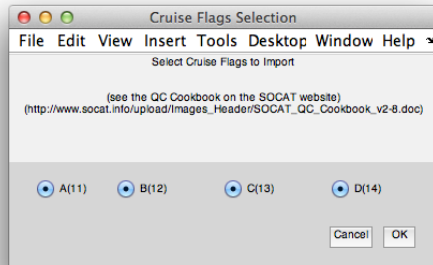
⑤ A progress bar will appear. When it disappears, the data will be loaded in Matlab.

Other details:

- It reads the file until the column headers are found.
- Determines # of columns from # of headers.
- Creates GUI to ask user which columns to import
- If Lat or Lon are selected for import, it creates another GUI to ask user which geographical region to import.
- If cruise flags are present and selected for import, it creates a GUI to select which flags to import. Likewise with data flags
- Data is stored in variables named after column headers
- Anything before column headers is stored in 'StartText' variable